

METHOD AND SYSTEM FOR CANCELING NOISE AND
COMPRESSING DATA FROM A MOTOR PHASE ANGLE SENSOR

ABSTRACT OF THE DISCLOSURE

- 5 A method and system for canceling noise and compressing data from a motor phase angle sensor. In this invention, phase angle data is sampled at a first sampling rate to generate a sampled phase angle. The sampled phase angle signal is sub-sampled at a second sampling rate to generate a sub-sampled phase angle signal which is transformed by subtracting each of the sub-sampled data points of the sub-sampled signal from 90 degrees to generate a transformed signal. The transformed phase angle signal is then convoluted with a wavelet signal to generate a convoluted phase angle signal. Next, a phase angle range signal is generated by calculating the range between the largest and smallest convoluted data points within each of a plurality of segments of the convoluted signal. A moving average calculation is performed on the phase angle range signal to generate a moving average signal.
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